SEQUENCE LISTING

<110> Donoho, Gregory
Stoville, John
Turner, C. Alexander Jr.
Friedrich, Glenn
Zambrowicz, Brian
Sands, Arthur T.

<120> NOVEL HUMAN THROMBOSPONDIN REPEAT PROTEINS AND POLYNUCLEOTIDES ENCODING THE SAME

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<151> 2000-02-17

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65                  70                  75                  80
Trp Gly Asp Trp Ser Asp Cys Ser Arg Thr Cys Gly Gly Gly Ala Ser
                85                  90                  95
Tyr Ser Leu Arg Arg Cys Leu Thr Gly Arg Asn Cys Glu Gly Gln Asn
            100                 105                 110
Ile Arg Tyr Lys Thr Cys Ser Asn His Asp Cys Pro Pro Asp Ala Glu
        115                 120                 125
Asp Phe Arg Ala Gln Gln Cys Ser Ala Tyr Asn Asp Val Gln Tyr Gln
    130                 135                 140
Gly His Tyr Tyr Glu Trp Leu Pro Arg Tyr Asn Asp Pro Ala Ala Pro
145                 150                 155                 160
Cys Ala Leu Lys Cys His Ala Gln Gly Gln Asn Leu Val Val Glu Leu
                165                 170                 175
Ala Pro Lys Val Leu Asp Gly Thr Arg Cys Asn Thr Asp Ser Leu Asp
            180                 185                 190
Met Cys Ile Ser Gly Ile Cys Gln Ala Val Gly Cys Asp Arg Gln Leu
        195                 200                 205
Gly Ser Asn Ala Lys Glu Asp Asn Cys Gly Val Cys Ala Gly Asp Gly
    210                 215                 220
Ser Thr Cys Arg Leu Val Arg Gly Gln Ser Lys Ser His Val Ser Pro
225                 230                 235                 240
Glu Lys Arg Glu Glu Asn Val Ile Ala Val Pro Leu Gly Ser Arg Ser
                245                 250                 255
Val Arg Ile Thr Val Lys Gly Pro Ala His Leu Phe Ile Glu Ser Lys
            260                 265                 270
Thr Leu Gln Gly Ser Lys Gly Glu His Ser Phe Asn Ser Pro Gly Val
        275                 280                 285
Phe Val Val Glu Asn Thr Thr Val Glu Phe Gln Arg Gly Ser Glu Arg
    290                 295                 300
Gln Thr Phe Lys Ile Pro Gly Pro Leu Met Ala Asp Phe Ile Phe Lys
305                 310                 315                 320
Thr Arg Tyr Thr Ala Ala Lys Asp Ser Val Val Gln Phe Phe Phe Tyr
                325                 330                 335
Gln Pro Ile Ser His Gln Trp Arg Gln Thr Asp Phe Phe Pro Cys Thr
            340                 345                 350
Val Thr Cys Gly Gly Gly Tyr Gln Leu Asn Ser Ala Glu Cys Val Asp
        355                 360                 365
Ile Arg Leu Lys Arg Val Val Pro Asp His Tyr Cys His Tyr Tyr Pro
    370                 375                 380
Glu Asn Val Lys Pro Lys Pro Lys Leu Lys Glu Cys Ser Met Asp Pro
385                 390                 395                 400
Cys Pro Ser Ser Asp Gly Phe Lys Glu Ile Met Pro Tyr Asp His Phe
                405                 410                 415
Gln Pro Leu Pro Arg Ala Gly Asn Ile Ile Leu Gly Leu His Val Pro
            420                 425                 430
Cys Pro Val Glu Glu Gly Phe Arg Asp Gly Ala Leu Cys Val
        435                 440                 445
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<210> 5
<211> 1119
<212> DNA
<213> homo sapiens

<400> 5

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ctccgcagaa ccacagctga gaaaatctct ggaaggaatt gtgaagggca gaacattcgg     120
tacaagacat gcagcaatca tgactgccct ccagatgcag aagatttcag agcccagcag     180
tgctcagcct acaatgatgt ccagtatcag gggcattact atgaatggct tccacgatat     240
aatgatcctg ctgccccgtg tgcactcaag tgtcatgcac aaggacaaaa cttggtggtg     300
gagctggcac ctaaggtact ggatggaact cgttgcaaca cggactcttt ggacatgtgt     360
atcagtggca tctgtcaggc agtgggctgc gatcggcaac tgggaagcaa tgccaaggag     420
```

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gacaactgtg gagtctgtgc cgggcgatggc tccacctgca ggctttgtacg gggacaatca     480
aagtcacacg tttctcctga aaaaagacaa gaaaaatgtaa ttgctgtttc tttgggaagt     540
cgaagtgtga gaattacagt gaaaggacct gcctacctct ttattgaatc aaaaacactt     600
caaggaagca aaggagaaca cagcttttaac agccccggcg tctttgtcgt agaaaacaca     660
acagtggaat ttcagagggg ctccgagagg caaaactttta agatttcagg acctctgatg     720
gctgatttca tctttcaagac caggtacact gcagccaaag acagcgtggt tcagttcttc     780
ttttaccagc ccatcagtca tcagtggaga caaactgact tctttcccctg cactgtgacg     840
tgtggaggag gttattagct caatttctgct gaatgtgtgg atatccgctt gaagagggta     900
gtttcctgacc attattgtca ctactacact gaaaaatgtaa aaccaaaaac aaaaactgaag     960
gaatgcagca tggatcccctg cccatcaagt gatggatttca aagagataat gccctatgac    1020
cacttccaac ctcttcctcg agctgggaac ataatccttg gactgcatgt tccgtgtcct    1080
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<210> 6
<211> 372
<212> PRT
<213> homo sapiens

<400> 6

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Met Ala Ser Trp Thr Ser Pro Trp Trp Val Leu Ile Gly Met Val Phe
 1               5                  10                  15
Met His Ser Pro Leu Pro Gln Thr Thr Ala Glu Lys Ser Pro Gly Arg
            20                  25                  30
Asn Cys Glu Gly Gln Asn Ile Arg Tyr Lys Thr Cys Ser Asn His Asp
        35                  40                  45
Cys Pro Pro Asp Ala Glu Asp Phe Arg Ala Gln Gln Cys Ser Ala Tyr
    50                  55                  60
Asn Asp Val Gln Tyr Gln Gly His Tyr Tyr Glu Trp Leu Pro Arg Tyr
65                  70                  75                  80
Asn Asp Pro Ala Ala Pro Cys Ala Leu Lys Cys His Ala Gln Gly Gln
                85                  90                  95
Asn Leu Val Val Glu Leu Ala Pro Lys Val Leu Asp Gly Thr Arg Cys
            100                 105                 110
Asn Thr Asp Ser Leu Asp Met Cys Ile Ser Gly Ile Cys Gln Ala Val
        115                 120                 125
Gly Cys Asp Arg Gln Leu Gly Ser Asn Ala Lys Glu Asp Asn Cys Gly
    130                 135                 140
Val Cys Ala Gly Asp Gly Ser Thr Cys Arg Leu Val Arg Gly Gln Ser
145                 150                 155                 160
Lys Ser His Val Ser Pro Glu Lys Arg Glu Glu Asn Val Ile Ala Val
                165                 170                 175
Pro Leu Gly Ser Arg Ser Val Arg Ile Thr Val Lys Gly Pro Ala His
            180                 185                 190
Leu Phe Ile Glu Ser Lys Thr Leu Gln Gly Ser Lys Gly Glu His Ser
        195                 200                 205
Phe Asn Ser Pro Gly Val Phe Val Val Glu Asn Thr Thr Val Glu Phe
    210                 215                 220
Gln Arg Gly Ser Glu Arg Gln Thr Phe Lys Ile Pro Gly Pro Leu Met
225                 230                 235                 240
Ala Asp Phe Ile Phe Lys Thr Arg Tyr Thr Ala Ala Lys Asp Ser Val
                245                 250                 255
Val Gln Phe Phe Phe Tyr Gln Pro Ile Ser His Gln Trp Arg Gln Thr
            260                 265                 270
Asp Phe Phe Pro Cys Thr Val Thr Cys Gly Gly Gly Tyr Gln Leu Asn
        275                 280                 285
Ser Ala Glu Cys Val Asp Ile Arg Leu Lys Arg Val Val Pro Asp His
    290                 295                 300
Tyr Cys His Tyr Tyr Pro Glu Asn Val Lys Pro Lys Pro Lys Leu Lys
305                 310                 315                 320
Glu Cys Ser Met Asp Pro Cys Pro Ser Ser Asp Gly Phe Lys Glu Ile
                325                 330                 335
Met Pro Tyr Asp His Phe Gln Pro Leu Pro Arg Ala Gly Asn Ile Ile
            340                 345                 350
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Leu Gly Leu His Val Pro Cys Pro Val Glu Glu Gly Phe Arg Asp Gly
        355                 360                 365
Ala Leu Cys Val
    370
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<210> 7
<211> 2175
<212> DNA
<213> homo sapiens

<400> 7

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tctcctcagg gaagttttct ggaagacaca acagggagcc agttcctcac ttatgctat      180
gatgaccaga cctcaagaaa cactcgttca gatgaagaca aagatggcaa ctgggatgct     240
tggggcgact ggagtgactg ctcccggacc tgtgggggag gagcatcata ttctctgcgg     300
agatgtttga ctggaaggaa ttgtgaaggg cagaacattc ggtacaagac atgcagcaat     360
catgactgcc ctccagatgc agaagatttc agagcccagc agtgctcagc ctacaatgat     420
gtccagtatc aggggcatta ctatgaatgg cttccacgat ataatgatcc tgctgccccg     480
tgtgcactca agtgtcatgc acaaggacaa aacttggtgg tggagctggc accttaaggta    540
ctggatggaa ctcgttgcaa cacggactcc ttggacatgt gtatcagtgg catctgtcag     600
gcagtgggct gcgatcggca actgggaagc aatgccaagg aggacaactg tggagtctgt     660
gccgcgatg gctccacctg caggcttgta cgggggacaat caaagtcaca cgtttctcct     720
gaaaaaagag aagaaaatgt aattgctgtt cctttgggaa gtcgaagtgt gagaattaca     780
gtgaaaggac ctgcccacct ctttattgaa tcaaaaacac ttcaaggaag caaaggagaa     840
cacagctta acagccccgg cgtctttgtc gtagaaaaca caacagtgga atttcagagg      900
ggctccgaga ggcaaacttt taagattcca ggaccttcga tggctgattt catcttcaag     960
accaggtaca ctgcagccaa agacagcgtg gttcagttct tcttttacca gcccatcagt    1020
catcagtgga gacaaactga cttctttccc tgcactgtga cgtgtggagg aggttatcag    1080
ctcaattctg ctgaatgtgt ggatatccgc ttgaagaggg tagttcctga ccattattgt    1140
cactactacc ctgaaaatgt aaaaccaaaa ccaaaactga aggaatgcag catggatccc    1200
tgcccatcaa gtgatggatt taaagagata atgccctatg accacttcca acctcttcct    1260
cgctgggaac ataatcttg gactgcatgt tccgtgttct gtggaggagg gattcagaga     1320
cggagctttg tgtgtgtaga ggaatccatg catggagaga tattgcaggt ggaagaatgg    1380
aagtgcatgt atgcacccaa acccaaggtt atgcaaactt gtaatctgtt tgattgcccc    1440
aagtggattg ccatggagtg gtctcagtgc acagtgactt gtggccgagg gttacggtac    1500
cgggttgttc tgtgtattaa ccaccgcgga gagcatgttg gggctgcaa tccacaactg     1560
aagttacaca tcaaagaaga atgtgtcatt cccatcccgt gttataaacc aaaagaaaaa    1620
agtccagtgg aagcaaaatt gccttggctg aaacaagcac aagaactaga agagaccaga    1680
atagcaacag aagaaccaac gttcattcca gaaccctggt cagcctgcag taccacgtgt    1740
gggccaggtg tgcaggtccg cgaggtgaag tgccgtgtgc tcctcacatt cacgcagact    1800
gagactgagc tgcccgagga agagtgtgaa ggccccaagc tgcccaccga acggccctgc    1860
ctcctggaag catgtgatga gagcccggcc tcccgagagc tagacatccc tctccctgag    1920
gacagtgaga cgacttacga ctgggagtac gctgggttca cccttgcac agcaacatgc     1980
ttgggaggcc atcaagaagc catagcagtg tgcttacata tccagaccca gcagacagtc    2040
aatgacagct tgtgtgatat ggtccacgt cctccagcca tgagccaggc ctgtaacaca     2100
gagccctgtc ccccaggag agagccagca gcttgtagaa gcatgccggg ttacataatg     2160
gtccngctag tctga                                                    2175
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<210> 8
<211> 724
<212> PRT
<213> homo sapiens

<400> 8

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Met Ala Ser Trp Thr Ser Pro Trp Trp Val Leu Ile Gly Met Val Phe
 1               5                  10                  15
Met His Ser Pro Leu Pro Gln Thr Thr Ala Glu Lys Ser Pro Gly Ala
            20                  25                  30
Tyr Phe Leu Pro Glu Phe Ala Leu Ser Pro Gln Gly Ser Phe Leu Glu
        35                  40                  45
Asp Thr Thr Gly Glu Gln Phe Leu Thr Tyr Arg Tyr Asp Asp Gln Thr
    50                  55                  60
```

Ser Arg Asn Thr Arg Ser Asp Glu Asp Lys Asp Gly Asn Trp Asp Ala
65 70 75 80
Trp Gly Asp Trp Ser Asp Cys Ser Arg Thr Cys Gly Gly Gly Ala Ser
85 90 95
Tyr Ser Leu Arg Arg Cys Leu Thr Gly Arg Asn Cys Glu Gly Gln Asn
100 105 110
Ile Arg Tyr Lys Thr Cys Ser Asn His Asp Cys Pro Pro Asp Ala Glu
115 120 125
Asp Phe Arg Ala Gln Gln Cys Ser Ala Tyr Asn Asp Val Gln Tyr Gln
130 135 140
Gly His Tyr Tyr Glu Trp Leu Pro Arg Tyr Asn Asp Pro Ala Ala Pro
145 150 155 160
Cys Ala Leu Lys Cys His Ala Gln Gly Gln Asn Leu Val Val Glu Leu
165 170 175
Ala Pro Lys Val Leu Asp Gly Thr Arg Cys Asn Thr Asp Ser Leu Asp
180 185 190
Met Cys Ile Ser Gly Ile Cys Gln Ala Val Gly Cys Asp Arg Gln Leu
195 200 205
Gly Ser Asn Ala Lys Glu Asp Asn Cys Gly Val Cys Ala Gly Asp Gly
210 215 220
Ser Thr Cys Arg Leu Val Arg Gly Gln Ser Lys Ser His Val Ser Pro
225 230 235 240
Glu Lys Arg Glu Glu Asn Val Ile Ala Val Pro Leu Gly Ser Arg Ser
245 250 255
Val Arg Ile Thr Val Lys Gly Pro Ala His Leu Phe Ile Glu Ser Lys
260 265 270
Thr Leu Gln Gly Ser Lys Gly Glu His Ser Phe Asn Ser Pro Gly Val
275 280 285
Phe Val Val Glu Asn Thr Thr Val Glu Phe Gln Arg Gly Ser Glu Arg
290 295 300
Gln Thr Phe Lys Ile Pro Gly Pro Leu Met Ala Asp Phe Ile Phe Lys
305 310 315 320
Thr Arg Tyr Thr Ala Ala Lys Asp Ser Val Val Gln Phe Phe Phe Tyr
325 330 335
Gln Pro Ile Ser His Gln Trp Arg Gln Thr Asp Phe Phe Pro Cys Thr
340 345 350
Val Thr Cys Gly Gly Gly Tyr Gln Leu Asn Ser Ala Glu Cys Val Asp
355 360 365
Ile Arg Leu Lys Arg Val Val Pro Asp His Tyr Cys His Tyr Tyr Pro
370 375 380
Glu Asn Val Lys Pro Lys Pro Lys Leu Lys Glu Cys Ser Met Asp Pro
385 390 395 400
Cys Pro Ser Ser Asp Gly Phe Lys Glu Ile Met Pro Tyr Asp His Phe
405 410 415
Gln Pro Leu Pro Arg Trp Glu His Asn Pro Trp Thr Ala Cys Ser Val
420 425 430
Ser Cys Gly Gly Gly Ile Gln Arg Arg Ser Phe Val Cys Val Glu Glu
435 440 445
Ser Met His Gly Glu Ile Leu Gln Val Glu Glu Trp Lys Cys Met Tyr
450 455 460
Ala Pro Lys Pro Lys Val Met Gln Thr Cys Asn Leu Phe Asp Cys Pro
465 470 475 480
Lys Trp Ile Ala Met Glu Trp Ser Gln Cys Thr Val Thr Cys Gly Arg
485 490 495
Gly Leu Arg Tyr Arg Val Val Leu Cys Ile Asn His Arg Gly Glu His
500 505 510
Val Gly Gly Cys Asn Pro Gln Leu Lys Leu His Ile Lys Glu Glu Cys
515 520 525
Val Ile Pro Ile Pro Cys Tyr Lys Pro Lys Glu Lys Ser Pro Val Glu
530 535 540
Ala Lys Leu Pro Trp Leu Lys Gln Ala Gln Glu Leu Glu Glu Thr Arg
545 550 555 560
Ile Ala Thr Glu Glu Pro Thr Phe Ile Pro Glu Pro Trp Ser Ala Cys

```
                565                 570                 575
Ser Thr Thr Cys Gly Pro Gly Val Gln Val Arg Glu Val Lys Cys Arg
            580                 585                 590
Val Leu Leu Thr Phe Thr Gln Thr Glu Thr Glu Leu Pro Glu Glu Glu
        595                 600                 605
Cys Glu Gly Pro Lys Leu Pro Thr Glu Arg Pro Cys Leu Leu Glu Ala
    610                 615                 620
Cys Asp Glu Ser Pro Ala Ser Arg Glu Leu Asp Ile Pro Leu Pro Glu
625                 630                 635                 640
Asp Ser Glu Thr Thr Tyr Asp Trp Glu Tyr Ala Gly Phe Thr Pro Cys
                645                 650                 655
Thr Ala Thr Cys Leu Gly Gly His Gln Glu Ala Ile Ala Val Cys Leu
            660                 665                 670
His Ile Gln Thr Gln Gln Thr Val Asn Asp Ser Leu Cys Asp Met Val
        675                 680                 685
His Arg Pro Pro Ala Met Ser Gln Ala Cys Asn Thr Glu Pro Cys Pro
    690                 695                 700
Pro Arg Arg Glu Pro Ala Ala Cys Arg Ser Met Pro Gly Tyr Ile Met
705                 710                 715                 720
Val Leu Leu Val
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<210> 9
<211> 1963
<212> DNA
<213> Homo sapiens

<400> 9

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tacaagacat gcagcaatca tgactgtcct ccagatgcag aagatttcag agcccagcag     180
tgctcagcct acaatgatgt ccagtatcag gggcattact atgaatggct tccacgatat     240
aatgatcctg ctgccccgtg tgcactcaag tgtcatgcac aaggacaaaa cttggtggtg     300
gagctggcac ctaaggtact ggatggaact cgttgcaaca cggactcctt ggacatgtgt     360
atcagtggca tctgtcaggc agtgggctgc gatcggcaac tgggaagcaa tgccaaggag     420
gacaactgtg gagtctgtgc cggcgatggc tccacctgca ggcttgtacg gggacaatca     480
aagtcacacg tttctcctga aaaaagagaa gaaaatgtaa ttgctgttcc tttgggaagt     540
cgaagtgtga gaattacagt gaaaggacct gcccacctct ttattgaatc aaaaacactt     600
caaggaagca aaggagaaca cagctttaac agccccggcg tcttgtcgt agaaaacaca     660
acagtggaat ttcagagggg ctccgagagg caaacttta agattccagg acctctgatg     720
gctgatttca tcttcaagac caggtacact gcagccaaag acagcgtggt tcagttcttc     780
ttttaccagc ccatcagtca ttagtggaga caaactgact tcttttcctg cactgtgacg     840
tgtggaggag gttatcagct caatttctgct gaatgtgtgg atatccgctt gaagagggta     900
gttcctgacc attattgtca ctactacccc gaaaatgtaa aaccaaaacc aaaactgaag     960
caatgcagca tggatccctg cccatcaagt gatggattta aagagataat gccctatgac    1020
cacttccaac ctctttcctg ctgggaacat aatccttgga ctgcatgttc cgtgtcctgt    1080
ggaggaggga ttcagagacg gagcttttgtg tgtgtagagg aatccatgca tggagagata    1140
ttgcaggtgg aagaatggaa gtgcatgtac gcaacccaaac ccaaggttat gcaaacttgt    1200
aatctgtttg attgcccaaa gtggattgcc atggagtggt ctcagtgcac agtgacttgt    1260
ggccgagggt tacggtaccg ggttgttctg tgtattaacc accgcggaga gcatgttggg    1320
ggctgcaatc cacaactgaa gttacacatc aaagaagaat gtgtcattcc catcccgtgt    1380
tataaaccaa aagaaaaaag tccagtggaa gcaaaattgc cttggctgaa acaagcacaa    1440
gaactagaag agaccagaat agcaacagaa gaaccaacgt tcattccaga accctggtca    1500
gcctgcagta ccacgtgtgg gccaggtgtg caggtccgcg aggtgaagtg ccgtgtgctc    1560
ctcacattca cgcagactga gactgagctg cccgaggaag agtgtgaagg cccaagctg     1620
tccacgaaac ggccttgcct cctggaagca tgtgatgaga gcccggcctc cgagagcta     1680
gacatccctc tccctgagga cagtgagacg acttacgact gggagtacgc tgggttcacc    1740
cctgcacag caacatgctt gggaggccat caagaagcca tagcagtgtg cttacatatc     1800
cagaccagc agacagtcaa tgacagcttg tgtgatatgg tccaccgtcc tccagccatg     1860
agccaggcct gtaacacaga gccctgtccc ccaggagag agccagcagc ttgtagaagc     1920
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<210> 10

<211> 650
<212> PRT
<213> nomo sapiens

<400> 10

Met	Ala	Ser	Trp	Thr	Ser	Pro	Trp	Trp	Val	Leu	Ile	Gly	Met	Val	Phe
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Met	His	Ser	Pro	Leu	Pro	Gln	Thr	Thr	Ala	Glu	Lys	Ser	Pro	Gly	Arg
			20					25					30		
Asn	Cys	Glu	Gly	Gln	Asn	Ile	Arg	Tyr	Lys	Thr	Cys	Ser	Asn	His	Asp
		35					40					45			
Cys	Pro	Pro	Asp	Ala	Glu	Asp	Phe	Arg	Ala	Gln	Gln	Cys	Ser	Ala	Tyr
	50					55					60				
Asn	Asp	Val	Gln	Tyr	Gln	Gly	His	Tyr	Tyr	Glu	Trp	Leu	Pro	Arg	Tyr
65					70					75					80
Asn	Asp	Pro	Ala	Ala	Pro	Cys	Ala	Leu	Lys	Cys	His	Ala	Gln	Gly	Gln
				85					90					95	
Asn	Leu	Val	Val	Glu	Leu	Ala	Pro	Lys	Val	Leu	Asp	Gly	Thr	Arg	Cys
			100					105					110		
Asn	Thr	Asp	Ser	Leu	Asp	Met	Cys	Ile	Ser	Gly	Ile	Cys	Gln	Ala	Val
		115					120					125			
Gly	Cys	Asp	Arg	Gln	Leu	Gly	Ser	Asn	Ala	Lys	Glu	Asp	Asn	Cys	Gly
	130					135					140				
Val	Cys	Ala	Gly	Asp	Gly	Ser	Thr	Cys	Arg	Leu	Val	Arg	Gly	Gln	Ser
145					150					155					160
Lys	Ser	His	Val	Ser	Pro	Glu	Lys	Arg	Glu	Glu	Asn	Val	Ile	Ala	Val
				165					170					175	
Pro	Leu	Gly	Ser	Arg	Ser	Val	Arg	Ile	Thr	Val	Lys	Gly	Pro	Ala	His
			180					185					190		
Leu	Phe	Ile	Glu	Ser	Lys	Thr	Leu	Gln	Gly	Ser	Lys	Gly	Glu	His	Ser
		195					200					205			
Phe	Asn	Ser	Pro	Gly	Val	Phe	Val	Val	Glu	Asn	Thr	Thr	Val	Glu	Phe
	210					215					220				
Gln	Arg	Gly	Ser	Glu	Arg	Gln	Thr	Phe	Lys	Ile	Pro	Gly	Pro	Leu	Met
225					230					235					240
Ala	Asp	Phe	Ile	Phe	Lys	Thr	Arg	Tyr	Thr	Ala	Ala	Lys	Asp	Ser	Val
				245					250					255	
Val	Gln	Phe	Phe	Phe	Tyr	Gln	Pro	Ile	Ser	His	Gln	Trp	Arg	Gln	Thr
			260					265					270		
Asp	Phe	Phe	Pro	Cys	Thr	Val	Thr	Cys	Gly	Gly	Gly	Tyr	Gln	Leu	Asn
		275					280					285			
Ser	Ala	Glu	Cys	Val	Asp	Ile	Arg	Leu	Lys	Arg	Val	Val	Pro	Asp	His
	290					295					300				
Tyr	Cys	His	Tyr	Tyr	Pro	Glu	Asn	Val	Lys	Pro	Lys	Pro	Lys	Leu	Lys
305					310					315					320
Glu	Cys	Ser	Met	Asp	Pro	Cys	Pro	Ser	Ser	Asp	Gly	Phe	Lys	Glu	Ile
				325					330					335	
Met	Pro	Tyr	Asp	His	Phe	Gln	Pro	Leu	Pro	Arg	Trp	Glu	His	Asn	Pro
			340					345					350		
Trp	Thr	Ala	Cys	Ser	Val	Ser	Cys	Gly	Gly	Gly	Ile	Gln	Arg	Arg	Ser
		355					360					365			
Phe	Val	Cys	Val	Glu	Glu	Ser	Met	His	Gly	Glu	Ile	Leu	Gln	Val	Glu
	370					375					380				
Glu	Trp	Lys	Cys	Met	Tyr	Ala	Pro	Lys	Pro	Lys	Val	Met	Gln	Thr	Cys
385					390					395					400
Asn	Leu	Phe	Asp	Cys	Pro	Lys	Trp	Ile	Ala	Met	Glu	Trp	Ser	Gln	Cys
				405					410					415	
Thr	Val	Thr	Cys	Gly	Arg	Gly	Leu	Arg	Tyr	Arg	Val	Val	Leu	Cys	Ile
			420					425					430		
Asn	His	Arg	Gly	Glu	His	Val	Gly	Gly	Cys	Asn	Pro	Gln	Leu	Lys	Leu
		435					440					445			
His	Ile	Lys	Glu	Glu	Cys	Val	Ile	Pro	Ile	Pro	Cys	Tyr	Lys	Pro	Lys
	450					455					460				

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Glu Lys Ser Pro Val Glu Ala Lys Leu Pro Trp Leu Lys Gln Ala Gln
465                 470                 475                 480
Glu Leu Glu Glu Thr Arg Ile Ala Thr Glu Glu Pro Thr Phe Ile Pro
                485                 490                 495
Glu Pro Trp Ser Ala Cys Ser Thr Thr Cys Gly Pro Gly Val Gln Val
            500                 505                 510
Arg Glu Val Lys Cys Arg Val Leu Leu Thr Phe Thr Gln Thr Glu Thr
        515                 520                 525
Glu Leu Pro Glu Glu Glu Cys Glu Gly Pro Lys Leu Pro Thr Glu Arg
    530                 535                 540
Pro Cys Leu Leu Glu Ala Cys Asp Glu Ser Pro Ala Ser Arg Glu Leu
545                 550                 555                 560
Asp Ile Pro Leu Pro Glu Asp Ser Glu Thr Thr Tyr Asp Trp Glu Tyr
                565                 570                 575
Ala Gly Phe Thr Pro Cys Thr Ala Thr Cys Leu Gly Gly His Gln Glu
            580                 585                 590
Ala Ile Ala Val Cys Leu His Ile Gln Thr Gln Gln Thr Val Asn Asp
        595                 600                 605
Ser Leu Cys Asp Met Val His Arg Pro Pro Ala Met Ser Gln Ala Cys
    610                 615                 620
Asn Thr Glu Pro Cys Pro Pro Arg Arg Glu Pro Ala Ala Cys Arg Ser
625                 630                 635                 640
Met Pro Gly Tyr Ile Met Val Leu Leu Val
                645                 650
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<210> 11
<211> 2538
<212> DNA
<213> homo sapiens

<400> 11

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<212> PRT
<213> homo sapiens

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Trp Gly Asp Trp Ser Asp Cys Ser Arg Thr Cys Gly Gly Gly Ala Ser
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Tyr Ser Leu Arg Arg Cys Leu Thr Gly Arg Asn Cys Glu Gly Gln Asn
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Gly His Tyr Tyr Glu Trp Leu Pro Arg Tyr Asn Asp Pro Ala Ala Pro
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Gln Pro Ile Ser His Gln Trp Arg Gln Thr Asp Phe Phe Pro Cys Thr
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Ser Cys Gly Gly Gly Ile Gln Arg Arg Ser Phe Val Cys Val Glu Glu
Ser Met His Gly Glu Ile Leu Gln Val Glu Glu Trp Lys Cys Met Tyr
Ala Pro Lys Pro Lys Val Met Gln Thr Cys Asn Leu Phe Asp Cys Pro
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Gly Leu Arg Tyr Arg Val Val Leu Cys Ile Asn His Arg Gly Glu His
Val Gly Gly Cys Asn Pro Gln Leu Lys Leu His Ile Lys Glu Glu Cys
Val Ile Pro Ile Pro Cys Tyr Lys Pro Lys Glu Lys Ser Pro Val Glu
Ala Lys Leu Pro Trp Leu Lys Gln Ala Gln Glu Leu Glu Glu Thr Arg
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Ser Thr Thr Cys Gly Pro Gly Val Gln Val Arg Glu Val Lys Cys Arg
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Cys Glu Gly Pro Lys Leu Pro Thr Glu Arg Pro Cys Leu Leu Glu Ala
Cys Asp Glu Ser Pro Ala Ser Arg Glu Leu Asp Ile Pro Leu Pro Glu
Asp Ser Glu Thr Thr Tyr Asp Trp Glu Tyr Ala Gly Phe Thr Pro Cys
Thr Ala Thr Cys Leu Gly Gly His Gln Glu Ala Ile Ala Val Cys Leu
His Ile Gln Thr Gln Gln Thr Val Asn Asp Ser Leu Cys Asp Met Val
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Pro Arg Trp His Val Gly Ser Trp Gly Pro Cys Ser Ala Thr Cys Gly
Val Gly Ile Gln Thr Arg Asp Val Tyr Cys Leu His Pro Gly Glu Thr
Pro Ala Pro Pro Glu Glu Cys Arg Asp Glu Lys Pro His Ala Leu Gln
Ala Cys Asn Gln Phe Asp Cys Pro Pro Gly Trp His Ile Glu Glu Trp
Gln Gln Cys Ser Arg Thr Cys Gly Gly Gly Thr Gln Asn Arg Arg Val
Thr Cys Arg Gln Leu Leu Thr Asp Gly Ser Phe Leu Asn Leu Ser Asp
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<212> PRT
<213> homo sapiens

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        35   40   45
Cys Pro Pro Asp Ala Glu Asp Phe Arg Ala Gln Gln Cys Ser Ala Tyr
    50   55   60
Asn Asp Val Gln Tyr Gln Gly His Tyr Tyr Glu Trp Leu Pro Arg Tyr
65   70   75   80
Asn Asp Pro Ala Ala Pro Cys Ala Leu Lys Cys His Ala Gln Gly Gln
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Asn Thr Asp Ser Leu Asp Met Cys Ile Ser Gly Ile Cys Gln Ala Val
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Gly Cys Asp Arg Gln Leu Gly Ser Asn Ala Lys Glu Asp Asn Cys Gly
130 135 140
Val Cys Ala Gly Asp Gly Ser Thr Cys Arg Leu Val Arg Gly Gln Ser
145 150 155 160
Lys Ser His Val Ser Pro Glu Lys Arg Glu Glu Asn Val Ile Ala Val
165 170 175
Pro Leu Gly Ser Arg Ser Val Arg Ile Thr Val Lys Gly Pro Ala His
180 185 190
Leu Phe Ile Glu Ser Lys Thr Leu Gln Gly Ser Lys Gly Glu His Ser
195 200 205
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Gln Arg Gly Ser Glu Arg Gln Thr Phe Lys Ile Pro Gly Pro Leu Met
225 230 235 240
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260 265 270
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275 280 285
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Lys Pro His Ala Leu Gln Ala Cys Asn Gln Phe Asp Cys Pro Pro Gly
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